

AMENDMENTS TO THE CLAIMS

1-47. (Cancelled)

48. (Currently Amended) In an electronic device interfaced with a display surface, a method, comprising ~~the steps of:~~

providing two block diagram models, said block diagram models having blocks representing components of a system;

determining corresponding features of said block diagram models that are present in both of said block diagram models;

determining differences between said block diagram models;

categorizing said differences between said two block diagram models as functional differences and graphical differences, said functional differences controlling the performance of a system represented by said block diagram models, said graphical differences affecting the appearance of said block diagram model displayed to a user;

copying all of said functional differences from said selected one of said two block diagram models;

copying less than all of said graphical differences from said selected one of said two block diagram models;

inserting the copied functional differences and graphical differences into ~~said other a~~ second of said two block diagram models; and

displaying on said display surface at least a portion of ~~the said other second of said two~~ block diagram models following said inserting of said copied functional differences and graphical differences in said second of said two block diagram models, on the display surface ~~said displaying of said at least a portion of said second of said two block diagram models displaying at least some of said copied functional differences and said graphical differences.~~

49. (Currently Amended) The method of claim 48, further comprising ~~the further steps of:~~

cascading hierarchically the replacement of data elements that were determined as differences in said ~~other second of the two~~ block diagram models wherein said data elements being replaced are arranged in a tree structure, said tree structure having parent data elements

with child data elements attached thereto, said child data elements in said ~~other~~ second of the two block diagram models being replaced when said parent data element is replaced.

50. (Currently Amended) The method of claim 48, further comprising ~~the further steps of:~~

cascading hierarchically the replacement of data elements that were determined as differences in said ~~other~~ second of the two block diagram models, wherein said data elements being replaced are arranged in a tree structure, said tree structure having parent data elements with child data elements attached thereto, said child data elements of corresponding parent data elements being replaced without replacing the corresponding parent data element.

51. (Currently Amended) In an electronic device interfaced with a display surface, a method, comprising ~~the steps of:~~

providing two block diagram models, said block diagram models having blocks representing components of a system;

determining corresponding features of said block diagram models that are present in both of said block diagram models;

determining differences between said block diagram models;

programmatically merging differences copied from a selected one of said two block diagram models into ~~the other~~ a second of said two block diagram models at a corresponding location in said ~~other~~ second of said two block diagram models;

determining a distance on said display surface from an endpoint of a line to an updated connection point for a block in said ~~other~~ second of said two block diagram models, said updated connection point being the connection point of [a] said line and said block following a merge operation;

comparing said distance to a pre-defined parameter, said pre-defined parameter being a distance value;

extending said line to said updated connection point when said distance is less than said pre-defined parameter; and

displaying said line on the display surface as part of the display of the second of said two block diagram models, the second of said two block diagram models displayed following the programmatic merging of differences copied from the selected one of said two block diagram models.

52. (Currently Amended) The method of claim 51, further comprising ~~the further step of~~:

replacing said line with a line drawn to said updated connection point when said distance is at least as large as said pre-defined parameter.

53. (Currently Amended) In an electronic device, a method, comprising ~~the steps of~~:

providing two state diagrams of a system, said state diagrams having blocks joined with lines, each of said blocks representing states in a system, said lines representing transitions between said states, said transitions taking place upon the occurrence of a specified event;

determining corresponding features of said state diagrams that are present in both of said state diagrams;

determining differences between said state diagrams, wherein the determining of differences includes categorizing said corresponding features as functional features and graphical features, said functional features controlling the performance of the system represented by said state diagram, said graphical features affecting the appearance of said state diagram displayed to a user, and determining differences in said functional features and said graphical features of said state diagrams;

enabling a user to select some of said differences;

merging the differences selected by the user from a selected one of said state diagrams into ~~the a second other~~ of said state diagrams, said merging ~~step~~ including the ~~step of~~ copying said selected differences from the selected one of said state diagrams and inserting said selected differences in said ~~other second of said~~ state diagrams, wherein the ~~step of~~ copying includes copying all of said selected differences in functional features from said selected one of said state diagrams and copying less than all of said selected differences in graphical features from said selected one of said state diagrams;

inserting the copied functional feature differences and graphical feature differences into of said ~~other second of said~~ state diagrams; and

displaying at least a portion of ~~the other said second of said~~ state diagrams on the display following the inserting of said selected differences into said second of said state diagrams, the displaying of the at least a portion of said second of said state diagrams displaying at least some of the selected differences copied from said selected one of said state diagrams.

54. (Currently Amended) In a network that includes an electronic device, said electronic device interfaced with a display surface, a method, comprising ~~the steps of~~:

retrieving over said network two block diagram models, said block diagram models having blocks joined with lines and including at least one semantic connection, said semantic connection associating components within the same system in said block diagram models without a direct connection in said diagram between the components, each of said blocks including connection points where said lines join said blocks;

displaying said block diagram models to a user on said display surface;

determining corresponding features of said block diagram models that are present in both of said block diagram models;

determining differences between said block diagram models, said differences being recorded as a list of data elements, wherein said determining of differences includes categorizing said differences between said block diagram models as functional differences and graphical differences, said functional differences controlling the performance of the system represented by said block diagram models, said graphical differences affecting the appearance of said block diagram models displayed to a user;

enabling a user to select some of said differences;

merging the differences selected by the user from a selected one of said block diagram models into ~~the a second other~~ of said two block diagram models, said merging ~~step~~ including the ~~step of~~ copying of said selected differences from the selected one of said block diagram models and inserting said selected differences in the ~~other~~ second of said two block diagram models, wherein the ~~step of~~ copying includes copying all of said selected functional differences from said selected one of said two block diagram models and copying less than all of said selected graphical differences from said ~~other~~ selected one of said two block diagram models;

inserting the copied functional differences and graphical differences into said ~~other~~ second of said two block diagram models; and

displaying at least a portion of ~~the other~~ said second of two block diagram models on the display surface following the inserting of said selected differences into said second of said two block diagram models, the displaying of the at least a portion of said second of said two block diagram models displaying at least some of the selected differences copied from said selected one of said block diagram models.

55. (Currently Amended) In an electronic device interfaced with a display surface, a medium holding computer-executable instructions for a method, said method comprising ~~the steps of:~~

providing two block diagram models, said block diagram models having blocks representing components of a system, said blocks connected by lines;

determining corresponding features of said block diagram models that are present in both of said block diagram models;

determining differences between said block diagram models, wherein the determining of differences includes categorizing said differences between said two block diagram models as functional differences and graphical differences, said functional differences controlling the performance of a system represented by said block diagram models, said graphical differences affecting the appearance of said block diagram model displayed to a user;

enabling a user to select some of said differences;

programmatically merging the differences selected by the user by copying said selected differences from a selected one of said two block diagram models into ~~the a second of other of~~ said two block diagram models at a corresponding location in said ~~other second of two~~ block diagram models, wherein the ~~step of~~ copying includes copying all of said selected functional differences from said selected one of said two block diagram models and copying less than all of said selected graphical differences from said selected one of said two block diagram models;

inserting the copied functional differences and graphical differences into said ~~other~~ second of two block diagram models; and

displaying at least a portion of ~~the other~~ said second of two block diagram models on the display surface following the inserting of said selected differences into said second of said two block diagram models, the displaying of the at least a portion of said second of said two block diagram models displaying at least some of the selected differences copied from said selected one of said block diagram models.